OIPE

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                RAW SEQUENCE LISTING              DATE: 09/18/2001
                PATENT APPLICATION:  US/09/845,721   TIME: 10:12:48

                Input Set : A:\Methodsseq.txt
                Output Set: N:\CRF3\09182001\I845721.raw

      3  <110> APPLICANT: Brennand, John
      4        Hart, Kevin
      6  <120> TITLE OF INVENTION: Methods
      8  <130> FILE REFERENCE: 1991-196
     10  <140> CURRENT APPLICATION NUMBER: US 09/845,721
C--> 11  <141> CURRENT FILING DATE: 2001-08-30
     13  <150> PRIOR APPLICATION NUMBER: US 60/201,418
     14  <151> PRIOR FILING DATE: 2000-05-03
     16  <160> NUMBER OF SEQ ID NOS: 2
     18  <170> SOFTWARE: PatentIn version 3.0
     20  <210> SEQ ID NO: 1
     21  <211> LENGTH: 1881
     22  <212> TYPE: DNA
     23  <213> ORGANISM: Homo sapiens
     25  <400> SEQUENCE: 1
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     32  tcaaatagtt tattctattt cactttctag ggaaaaaaac caactgctcc aaaagaatgt    240
     34  gttttctcc cattctggaa atcaacatgc agtctgaatc taacattaca gtgcgagatg    300
     36  acattgatga catcaacacc aatatgtacc aaccactatc atatccgtta agctttcaag    360
     38  tgtctctcac cggatttctt atgttagaaa ttgtgttggg acttggcagc aacctcactg    420
     40  tattggtact ttactgcatg aaatccaact taatcaactc tgtcagtaac attattacaa    480
     42  tgaatcttca tgtacttgat gtaataattt gtgtgggatg tattcctcta actatagtta    540
     44  tccttctgct ttcactggag agtaacactg ctctcatttg ctgtttccat gaggcttgtg    600
     46  tatcttttgc aagtgtctca acagcaatca acgtttttgc tatcactttg dacagatatg    660
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     50  tatccatttg gatttttttct tttttctctt tcctgattcc ttttattgag gtaaattttt    780
     52  tcagtcttca aagtggaaat acctgggaaa acaagacact tttatgtgtc agtacaaatg    840
     54  aatactacac tgaactggga atgtattatc acctgttagt acagatccca atattctttt    900
     56  tcactgttgt agtaatgtta atcacataca ccaaaatact tcaggctctt aatattcgaa    960
     58  taggcacaag attttcaaca gggcagaaga agaaagcaag aaagaaaaag acaatttctc   1020
     60  taaccacaca acatgaggct acagacatgt cacaaagcag tggtgggaga aatgtagtct   1080
     62  ttggtgtaag aacttcagtt tctgtaataa ttgccctccg gcgagctgtg aaacgacacc   1140
     64  gtgaacgacg agaaagacaa aagagagtct tcaggatgtc tttattgatt atttctacat   1200
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     68  gtgacctttt agtaaaatta agattgtgtt ttttagtcat ggcttatgga acaactatat   1320
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     88  aaaaaaaaaa aaaaaaaaaa a                                             1881
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92 <211> LENGTH: 433
93 <212> TYPE: PRT
94 <213> ORGANISM: Homo sapiens
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102             20                  25                  30
104 Pro Leu Ser Tyr Pro Leu Ser Phe Gln Val Ser Leu Thr Gly Phe Leu
105          35                  40                  45
107 Met Leu Glu Ile Val Leu Gly Leu Gly Ser Asn Leu Thr Val Leu Val
108      50                  55                  60
110 Leu Tyr Cys Met Lys Ser Asn Leu Ile Asn Ser Val Ser Asn Ile Ile
111 65                  70                  75                  80
113 Thr Met Asn Leu His Val Leu Asp Val Ile Ile Cys Val Gly Cys Ile
114                 85                  90                  95
116 Pro Leu Thr Ile Val Ile Leu Leu Leu Ser Leu Glu Ser Asn Thr Ala
117             100                 105                 110
119 Leu Ile Cys Cys Phe His Glu Ala Cys Val Ser Phe Ala Ser Val Ser
120          115                 120                 125
122 Thr Ala Ile Asn Val Phe Ala Ile Thr Leu Asp Arg Tyr Asp Ile Ser
123      130                 135                 140
125 Val Lys Pro Ala Asn Arg Ile Leu Thr Met Gly Arg Ala Val Met Leu
126 145                 150                 155                 160
128 Met Ile Ser Ile Trp Ile Phe Ser Phe Phe Ser Phe Leu Ile Pro Phe
129                 165                 170                 175
131 Ile Glu Val Asn Phe Phe Ser Leu Gln Ser Gly Asn Thr Trp Glu Asn
132             180                 185                 190
134 Lys Thr Leu Leu Cys Val Ser Thr Asn Glu Tyr Tyr Thr Glu Leu Gly
135          195                 200                 205
137 Met Tyr Tyr His Leu Leu Val Gln Ile Pro Ile Phe Phe Phe Thr Val
138      210                 215                 220
140 Val Val Met Leu Ile Thr Tyr Thr Lys Ile Leu Gln Ala Leu Asn Ile
141 225                 230                 235                 240
143 Arg Ile Gly Thr Arg Phe Ser Thr Gly Gln Lys Lys Lys Ala Arg Lys
144                 245                 250                 255
146 Lys Lys Thr Ile Ser Leu Thr Thr Gln His Glu Ala Thr Asp Met Ser
147             260                 265                 270
149 Gln Ser Ser Gly Gly Arg Asn Val Val Phe Gly Val Arg Thr Ser Val
150          275                 280                 285
152 Ser Val Ile Ile Ala Leu Arg Arg Ala Val Lys Arg His Arg Glu Arg
153      290                 295                 300
155 Arg Glu Arg Gln Lys Arg Val Phe Arg Met Ser Leu Leu Ile Ile Ser
156 305                 310                 315                 320
158 Thr Phe Leu Leu Cys Trp Thr Pro Ile Ser Val Leu Asn Thr Thr Ile
159                 325                 330                 335
161 Leu Cys Leu Gly Pro Ser Asp Leu Leu Val Lys Leu Arg Leu Cys Phe
162             340                 345                 350
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164 Leu Val Met Ala Tyr Gly Thr Thr Ile Phe His Pro Leu Leu Tyr Ala
165         355             360             365
167 Phe Thr Arg Gln Lys Phe Gln Lys Val Leu Lys Ser Lys Met Lys Lys
168     370             375             380
170 Arg Val Val Ser Ile Val Glu Ala Asp Pro Leu Pro Asn Asn Ala Val
171 385             390             395             400
173 Ile His Asn Ser Trp Ile Asp Pro Lys Arg Asn Lys Lys Ile Thr Phe
174             405             410             415
176 Glu Asp Ser Glu Ile Arg Glu Lys Arg Leu Val Pro Gln Val Val Thr
177       .   420             425             430
179 Asp
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VERIFICATION SUMMARY   DATE: 09/18/2001
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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date